ABSTRACT

In a packet retransmission system for retransmitting a packet where a sequence number is added between the transmission apparatus and the reception apparatus at a loss of the packet in

5   packet transmission, a transmission apparatus 101 for transmitting the packet, a reception apparatus 102 connected to the transmission apparatus 101 through a network 104, and a requestor (application) 103 connected to the reception apparatus 102 are provided. The transmission apparatus 101 includes a retransmission buffer for storing the packet having been transmitted to the reception apparatus 102, retransmission-request receiving means 106 for

10   identifying the sequence number and the largest sequence number in a retransmission-request packet received from the reception apparatus 102 and notifying the sequence number and the largest sequence number, retransmission packet detecting means 107 for detecting a packet to be retransmitted based on the notified sequence number, and retransmission means 109 for retransmitting the packet to be retransmitted to the reception apparatus 102. The reception

15   apparatus 102 includes   a reception buffer for storing the packet received from the transmission apparatus 101, receiving means 110 for storing the packet received from the transmission apparatus in the reception buffer with sorting the packet in order of the sequence number, packet loss detecting means 111 for detecting a packet loss, retransmission sequence number adding means 112 for instructing to add the sequence number of the detected lost packet

20   to a retransmission list, retransmission-request list managing means 115 for adding the sequence number to the retransmission-request list based on the instruction to add, retransmission-request transmitting means 114 for putting the sequence number stored in the retransmission-request list, in a retransmission-request packet and sending the retransmission-request packet to the transmission apparatus 101, and packet providing means 119 for providing the packet in the

25   reception buffer to the requestor 103.